

# PATENT ABSTRACTS OF JAPAN

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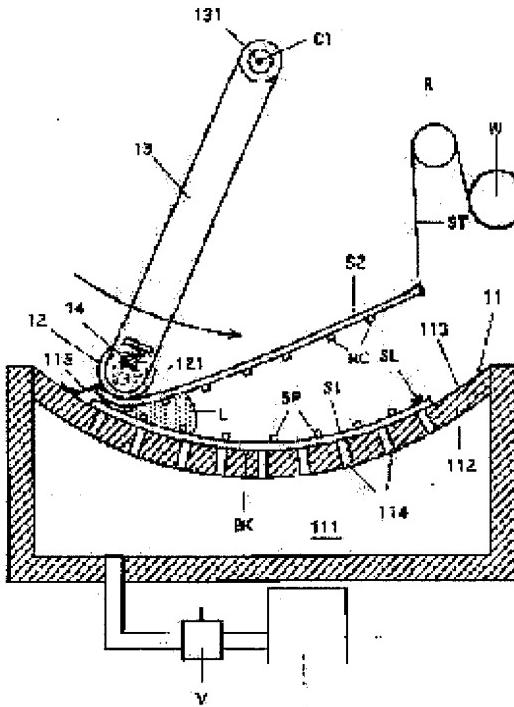
(21) Application number : 2000-199350

(71) Applicant : MINOLTA CO LTD

(22) Date of filing : 30.06.2000

(72) Inventor : UEDA MASAHIKE  
HASHIMOTO KIYOBUMI  
SASAI KOSUKE  
YAMADA JUN  
NISHIZUMI MASAFUMI

## (54) METHOD AND DEVICE FOR MANUFACTURING LIQUID CRYSTAL DISPLAY CURVED SURFACE PANEL



### (57) Abstract:

PROBLEM TO BE SOLVED: To easily manufacture a liquid crystal display curved surface panel so that a prescribed curved surface state can stable be maintained over a long- term while suppressing intrusion of the air bubble in a liquid crystal material layer, of/and while suppressing waste of the liquid crystal material. SOLUTION: A seal wall material SL is disposed on at least either of a substrate S1 and a substrate S2. One substrate S1 is held on a stage 11 which has a substrate holding curved surface 113 with curvature according to bend of the targeted liquid crystal display curved surface pane. A state where liquid crystal material L is disposed between both of the substrates while being held in the state where the end of the substrate S2 is superposed on the end of the substrate S1 is formed. Both of the substrates are stuck together by extending the liquid crystal material L between both of the substrates by performing relative circular arc movement of a pressurizing member 12 and the stage 11 around a curvature radius center C1 of the substrate holding curved surface

substrates by performing relative circular arc movement of a pressurizing member 12 and the stage 11 around a curvature radius center C1 of the substrate holding curved surface

113 of the stage 11 while clamping both of the substrates by the stage 11 and the pressurizing member 12.

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(21) Application number : **09-070249**

(71) Applicant : **SEIKO EPSON CORP**

(22) Date of filing : **24.03.1997**

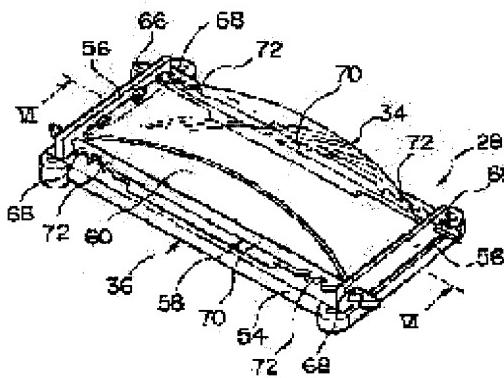
(72) Inventor : **HOSOGAYA HIROYUKI**

**(54) HOLDER FOR LIQUID CRYSTAL DISPLAY PANEL, LIQUID CRYSTAL DISPLAY USING IT, ELECTRONIC EQUIPMENT USING THE LIQUID CRYSTAL DISPLAY DEVICE, AND CURVED SURFACE LIQUID CRYSTAL DISPLAY PANEL MANUFACTURING JIG AND METHOD OF MANUFACTURING CURVED SURFACE LIQUID CRYSTAL DISPLAY PANEL USING IT**

(57) Abstract:

PROBLEM TO BE SOLVED: To make it possible to enlarge a display area by forming a liquid crystal display panel to a curved surface form and to freely set a curvature of the liquid crystal display panel.

SOLUTION: A flexible liquid crystal display panel 34 in which liquid crystal is filled between opposed flexible substrates is held in a state of the curved surface by a holder 36 for the liquid crystal display panel. The holder 36 for the liquid crystal display panel has an opposed pair of abutting members 56 abutted on both ends of the liquid crystal display panel 34, and an adjusting mechanism 58 which makes a distance between the pair of abutting members 56 variable by moving the abutting members 56 and allows the state of the curved surface of the liquid crystal display panel 34 to be maintained at a halt position.



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